

REMARKS

Reconsideration of the above-identified application is respectfully requested.

Claims 1–10 were rejected as unpatentable over Swaminathan et al. in view of Uchino et al. The Swaminathan et al. patent relates to comfort noise. The Uchino et al. publication relates to “properly evaluating a phase noise transfer characteristic of a device under analysis in a short measuring time” (paragraph [0002]). What is the device under analysis in the Uchino et al. publication? The claimed invention relates to a telephone, which is not under test. Is the comfort noise for testing a user? It is respectfully submitted that there is no basis for the combination; *In re Rouffet*, 47 USPQ2d 1453, at 1457 (Fed. Cir. 1998).

In response, the Examiner asserts the following in the final Office Action.

“In the present situation, the Swaminathan et al. reference was used to teach the concept of comfort noise generation for a wireless telephone (Abstract), and the Uchino et al. reference was used to teach generating background noise in accordance with the magnitude of the signal (Paragraph 457). The examiner then contended that it would be obvious to one of ordinary skill in the art to apply the teaching of generating background noise as taught by Uchino et al. in the telephone of Swaminathan et al. since it already has a comfort noise generating means in order to generate noise signal “having a characteristic along the power spectrum density distributions of the frequency fluctuations” (Uchino et al.: Paragraph 478). In other words, one would be motivated to incorporate Uchino et al.’s teaching in order to generate a noise signal that corresponds to the magnitudes of the different frequency sub-bands thus resulting in a more consistent result when coupled to the transmit or receive channel.”

The paragraph reads as though something is missing. Why cite the Swaminathan et al. patent “to teach the concept of comfort noise generation for a wireless telephone” when applicants concede in the Background of the Invention that the broad concept is old? Why not cite the patents cited by applicants.? What was it about the Swaminathan et al. patent that caused the Examiner to cite it?

As written, the paragraph basically says that, absent the Swaminathan et al. patent, there would not be any mention of comfort noise (the Uchino et al. publication does not mention comfort noise). Thus, the rejection comes down to an assertion that it is obvious to generate comfort noise in the manner that the Uchino et al. publication generates test signals. If the method and apparatus disclosed in the Uchino et al. publication were the same as, or close to, the claimed method and

apparatus, the assertion might have some validity. The Uchino et al. publication is unrelated to the method and apparatus claimed by applicants and the assertion fails.

The Examiner alleges that "Uchino et al. disclose a method for providing a noise signal in a digital communication system." As clear from the quote from paragraph [0002], this assertion is not true. The "device under analysis" is a "digital line," which in less pretentious terms is a wire, perhaps coaxial, perhaps a twisted pair of wires. To characterize a wire as a "digital communication system" is an aggrandizement that exceeds the published application. To mischaracterize the prior art in order to support a rejection is improper and vitiates the rejection.

In the section Response to Arguments, the Examiner says "digital line 1, which constitutes a digital communication system." How does a wire know whether a signal is digital or analog? Even power lines exhibit variable phase shift, the parameter under test by the apparatus disclosed by the Uchino et al. publication. The Examiner's assertion is reminiscent of the current efforts by salesmen who urge buying a "digital antenna" to receive digital TV signals. There is no such thing as a digital antenna.* Similarly, a digital line, the device under test, is not a digital communication system.

The reliance on the Uchino et al. publication is an assertion that putting noise into a wire to test the electrical characteristics of the wire renders obvious, not just comfort noise, but a particular kind of comfort noise. Applicants respectfully disagree because (1) there is no basis for the combination, (2) the interpretation of a wire as a communication system does violence to the ordinary meaning of the words, and (3) the combination is inoperative for the reason given below.

"The applicant further argues that Uchino et al. do not disclose that "the magnitudes of the white noise into each QMF filter is controlled in accordance with the magnitude of the signal in the corresponding sub-band in the one channel". The examiner respectfully disagrees. The examiner again asserts that paragraph 457 of Uchino et al. disclose this limitation. Paragraph 457 states that "The weighting coefficients $\sigma_1 - \sigma_{13}$ have values

* One might quibble that the very first antennas (long wires) were digital. Communication was by the presence or absence of a signal, i.e. ones and zeroes. Is a Marconi set digital or analog, or is the characterization misplaced? Perhaps the Examiner's characterization of a wire as a digital communication system is misplaced as well.

proportional to the square roots of magnitudes of spectra in the respective bands of the power spectrum density distribution". This proportionality relationship is interpreted as equivalent to the cited limitation since the weighting coefficients are set in accordance to the magnitude of the spectra/sub-bands. " [underscore in Office Action]

What is the power spectrum density distribution characteristic $S_y(f)$? It is a table of constants, defined in subsequent paragraphs of the publication. Signals $\sigma_1-\sigma_{13}$ are defined in paragraphs [458–470] as fixed weights.

What do the claims recite? The claims recite that the magnitude of the noise is controlled "in accordance with the magnitude of the signal in a corresponding sub-band ."

What is the signal in a sub-band? The signal is a variable. Disclosing a constant does not disclose or suggest a variable, any variable. It certainly does not disclose or suggest the specific variable claimed.

Blithely ignoring paragraphs [0457]–[0471] just because they are unfavorable to the Examiner's position is not proper examination. Plugging in constants where variables should go is not good engineering. The result is an inoperative system.

Applicants previous comments on the contents of the Swaminathan et al. patent and the Uchino et al. publication remain relevant.

In view of the foregoing remarks, it is respectfully submitted that claims 1–10 are in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,



Paul F. Wille
Reg. No. 25,274
Attorney for Applicants

6407 East Clinton Street
Scottsdale, AZ 85254
tel.: 602 549–9088
fax.: 480 778–0304